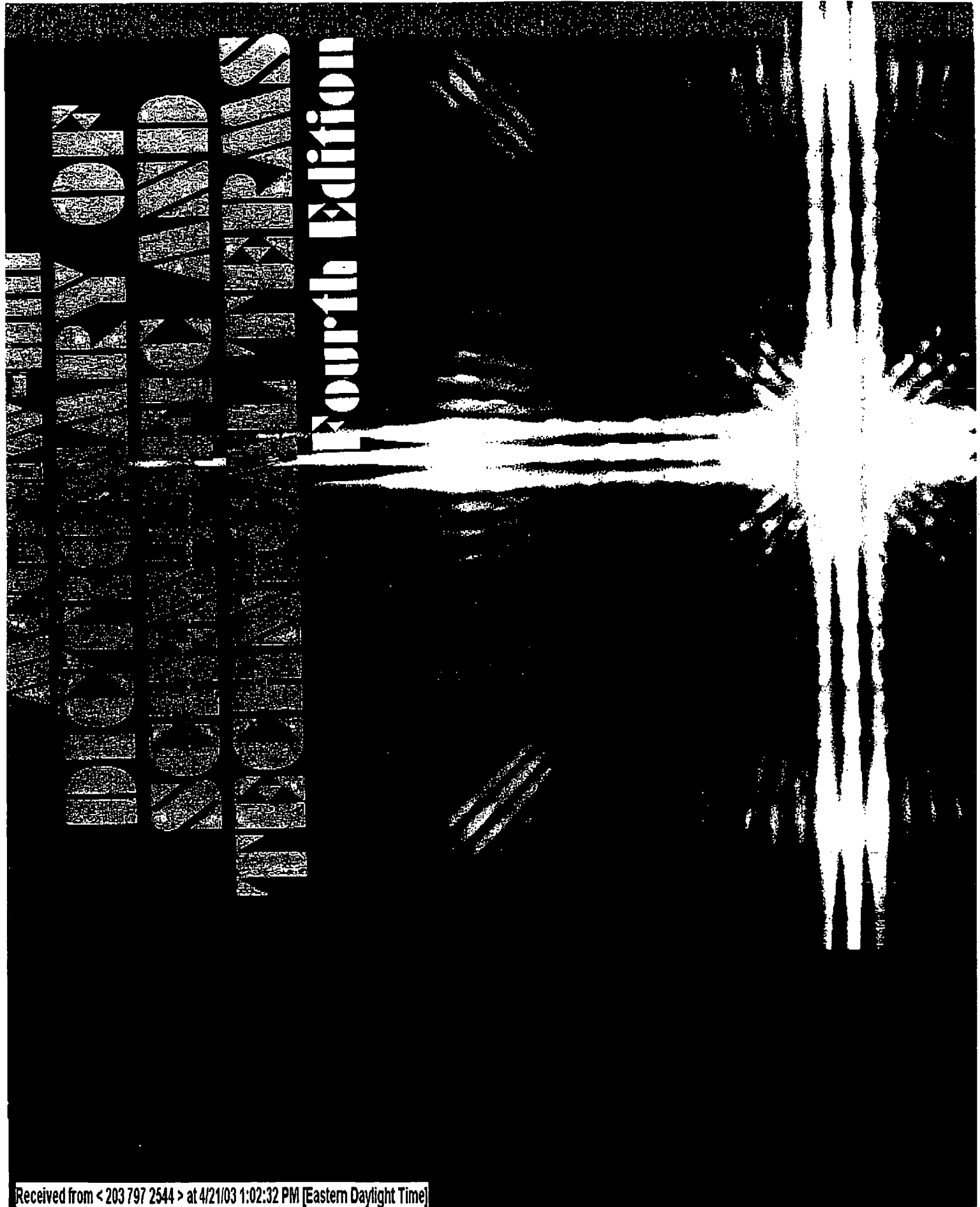


## **APPENDIX A**



On the cover: Pattern produced from white light by a computer-generated diffraction plate containing 529 square apertures arranged in a 23 x 23 array. (R. B. Hoover, Marshall Space Flight Center)

On the title pages: Aerial photograph of the Sinai Peninsula made by Gemini spacecraft. (NASA)

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#### McGraw-Hill Dictionary of Scientific and Technical Terms, Fourth Edition

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which uses magnetic disks as its primary on-line storage. { 'disk 'lɪpə'rɪdɪŋ 'sɪstəm }

**disk pack** [COMPUT SCI] A set of magnetic disks that can be removed from a disk drive as a unit. { 'disk 'pæk }

**disk plow** [AGR] A plow consisting of a number of disk blades attached to one axle or gang bolt; used for rapid, shallow plowing. { 'disk 'pləʊ }

**disk population** [ASTRON] The older Population I stars such as the sun. { 'disk 'pɒpjə'lə'shən }

**disk recording** [ENG ACOUS] 1. The process of inscribing suitably transformed acoustical or electrical signals on a phonograph record. 2. See phonograph record. { 'disk rɪ'kɔrdɪŋ }

**disk sander** [MECH ENG] A machine that uses a circular disk coated with abrasive to smooth or shape surfaces. { 'disk 'sændər }

**disk-seal tube** [ELECTR] An electron tube having disk-shaped electrodes arranged in closely spaced parallel layers, to give low interelectrode capacitance along with high power output, up to 2500 megahertz. Also known as lighthouse tube; megalron. { 'disk 'seɪl 'tjuːb }

**disk signal** [CIV ENG] Automatic block signal with colored disks that indicate train movements. { 'disk 'sɪgnəl }

**disk spring** [MECH ENG] A mechanical spring that consists of a disk or washer supported by one force (distributed by a suitable chuck or holder) at the periphery and by an opposing force on the center or hub of the disk. { 'disk 'sprɪŋ }

**disk storage** [ELECTR] An external computer storage device consisting of one or more disks spaced on a common shaft, and magnetic heads mounted on arms that reach between the disks to read and record information on them. Also known as disk memory; magnetic disk storage. { 'disk 'stɔːrɪdʒ }

**disk telescope** [OPTICS] A telescope designed for observations of the brilliant solar disk; examples are the tower telescope and the horizontal fixed telescope. { 'disk 'telə'skɒp }

**disk thermistor** [ELECTR] A thermistor which is produced by pressing and sintering an oxide binder mixture into a disk, 0.2-0.6 inch (5-15 millimeters) in diameter and 0.04-0.5 inch (1.0-13 millimeters) thick, coating the major surfaces with conducting material, and attaching leads. { 'disk 'θər'mɪstər }

**disk unit** See disk drive. { 'disk 'juːnɪt }

**disk-wall packer** [PETRO ENG] A disklike seal between the outside of the well tubing and the inside of the well casing; used to prevent fluid movement from the pressure differential above and below the sealing point. { 'disk 'wɔl 'pækər }

**disk wheel** [DES ENG] A wheel in which a solid metal disk, rather than separate spokes, joins the hub to the rim. { 'disk 'wel }

**dislocation** [CRYSTAL] A defect occurring along certain lines in the crystal structure and present as a closed ring or a line anchored at its ends to other dislocations, grain boundaries, the surface, or other structural feature. Also known as line defect. { 'dɪs'ləʊ'keɪʃən }

**[GEOL]** Relative movement of rock on opposite sides of a fault. Also known as displacement. { 'dɪs'ləʊ'keɪʃən }

**dislocation breccia** See fault breccia. { 'dɪs'ləʊ'keɪʃən 'breʃiə }

**diambricite** [GEOL] Fine-grained limestone of obscure origin, resembling micrite but containing sparry calcitic bodies. { 'dɪə'mbrɪ'saɪt }

**dismount** [ORD] To remove a weapon or piece of equipment from its setting, mount, or carriage. { 'dɪs'maʊnt }

**disodium hydrogen phosphate** See disodium phosphate. { dɪ'sɒd-ē-əm 'hɪ-dro-jən 'fæs'fæt }

**disodium methylarsenate** [ORG CHEM]  $\text{CH}_3\text{AsO}(\text{ONa})_2$  A colorless, hygroscopic, crystalline solid; soluble in water and methanol; used in pharmaceuticals and as a herbicide. Abbreviated DMA. { dɪ'sɒd-ē-əm 'meth-əl 'ɑːrs-ən-aɪt }

**disodium phosphate** [INORG CHEM]  $\text{Na}_2\text{HPO}_4$  Transparent crystals, soluble in water; used in the textile processing and other industries to control pH in the range 4-9, as an additive in processed cheese to maintain spreadability, and as a laxative and antacid. Also known as disodium hydrogen phosphate. { dɪ'sɒd-ē-əm 'fæs'fæt }

**disodium tartrate** See sodium tartrate. { dɪ'sɒd-ē-əm 'tɑːr'etrət }

**disomy** [CYTOL] Duplication of chromosomes unaccompanied by nuclear division. { dɪ'sɒm-ē }

**Disomidae** [INV ZOO] A family of spioniform annelid worms belonging to the Sedentaria. { dɪ'sɒm-ēd }

**disophenol** [PHARM]  $\text{I}_2\text{C}_6\text{H}_2(\text{NO}_2)_2\text{OH}$  Light yellow crystals with a melting point of 157°C; soluble; used as an anthelmintic drug in animals. { dɪ'sɒf-ən-ol }

**disorder** [CRYSTAL] Departures from regular occupation of lattice sites in a crystal containing an element. { dɪs'ɔːdər }

**disordered crystalline alloy** [SOLID STATE] A two elements in which the atoms of the mixture more or less random positions on a crystal lattice. { dɪs'ɔːd-ər 'krɪstəl-ən 'al-ɔɪ }

**disorientation** [MED] Mental confusion as to relationship to his or her environment, especially and people; associated with organic brain disorder. { dɪs'ɔːr-ən-tə'shən }

**dispatching** [COMPUT SCI] The control of queue of requests in a multiprogramming or multivironment. { dɪs'pætʃ-ɪŋ }

**dispatching priority** [COMPUT SCI] In a multiprogramming or multitasking environment, the priority assigned (non-real time, nonforeground) task. { dɪs'pætʃ-ə-ri-ə-ti }

**dispenser** [ENG] Device that automatically discharges from an aircraft. { dɪ'spensər }

**dispenser cathode** [ELECTR] An electron tube having provisions for continuously replacing evaporating emitting material. { dɪ'spens-ər 'kæθ-əd }

**dispermy** [PHYSIO] Entrance of two spermatozoa into an ovum. { dɪ'spɜːrm-ē }

**dispersal** [CIV ENG] The practice of building or industrial plants, government offices, or the like, in areas, to reduce vulnerability to enemy attack.

**dispersal pattern** [GEOCHEM] Distribution pattern in soil, rock, water, or vegetation. { dɪ'spɜːsəl 'pæt-ən }

**disperse** [COMPUT SCI] A data-processing operation in which grouped input items are distributed among a large number of groups in the output. { dɪ'spɜːs }

**dispersed elements** [GEOCHEM] Elements which are not independent minerals but are present as minor constituents in minerals of abundant elements. { dɪ'spɜːsəd 'el-ə-mnts }

**dispersed gas injection** [PETRO ENG] Gas-injection maintenance of an oil reservoir in which the gas is arranged geometrically to distribute the gas throughout the oil-productive portions of the reservoir. { dɪ'spɜːsəd 'gæs ɪn-ʃek-ʃən }

**disperse dye** [MATER] A very slightly water-soluble material for use on cellulose acetate and other synthetic fibers; color is transferred to the fiber as extremely fine particles, resulting in a solution of the dye in the fiber. { dɪ'spɜːs 'daɪ }

**disperse phase** [CHEM] The phase of a dispersion consisting of particles or droplets of one substance dispersed through another system. Also known as discontinuous phase. { dɪ'spɜːs 'fāz }

**disperser** [MATER] Material added to solid-in-liquid or liquid-in-liquid suspensions to separate the individual particles; used in pigment grinding and dye dispersion. { dɪ'spɜːs-ər }

**disperse system** [CHEM] A two-phase system consisting of a dispersion medium and a disperse phase. { dɪ'spɜːs 'sɪstəm }

**dispersible inhibitor** [CHEM] An additive that disperses in a liquid with only moderate agitation to inhibit chemical action. { dɪ'spɜːs-ə-bəl ɪn-ˈhɪb-ər }

**dispersing agent** See disperser. { dɪ'spɜːs-ɪŋ 'ædʒ-ənt }

**dispersing prism** [OPTICS] An optical prism which disperses light of different wavelengths by different amounts. { dɪ'spɜːs-ɪŋ 'prɪz-m }

**dispersion** [AERO ENG] Deviation from a preplanned path; specifically, circular dispersion especially of missiles. { dɪ'spɜːs-ən }

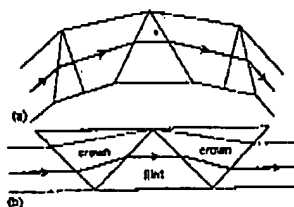
**[ASTRON]** The frequency dependence of the propagation of radio waves (such as those emitted by a star) as they pass through an ionized gas. { dɪ'spɜːs-ən }

**[CHEM]** A finely divided particles in a medium. { dɪ'spɜːs-ən }

**[COMMUN]** The output of a communications channel which is known. { dɪ'spɜːs-ən }

**[ELECTROMAG]** Scattering of microwaves. { dɪ'spɜːs-ən }

#### DISPERSING PRISM



Two types of dispersing prisms.  
(a) Rayleigh prism system.  
(b) Amici direct-vision system consisting of flint-glass prism and two crown-glass prisms.